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Communications
Workers of America
AFL-CIO, CLC

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VIA E-MAIL

June 10, 2005

Ms. Marlene Dortch, Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, D.C. 20554

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JUN 13 2005

Federal Communications Commission
Office of Secretary

Dear Ms. Dortch:

RE: Ex Parte Notice. WC Docket No. 05-65. In the Matter of Application for Transfer of Control Filed by SBC Communications Inc. and AT&T Corp.

On June 9, 2005, Debbie Goldman, Research Economist with the Communications Workers of America (CWA) met with FCC staff members Tom Navin, Bureau Chief, Gail Cohen, Bill Dever, Craig Stroup, Rodger Woock, Ian Dillner of the Wireline Competition Bureau; Jim Bird, Karen Onyeije, C. Anthony Bush, Joel Rabinovitz, and Kent Nilsson of the Office of the General Counsel; and Chuck Needy of the Office of Strategic Planning and Policy Analysis.

Ms. Goldman discussed reasons that the AT&T – SBC merger serves the public interest. It will result in a financially stronger company that will provide U.S. leadership in communications; it will speed the transition from legacy networks to next-generation IP-enabled end-to-end networks and services; it will preserve good jobs and a skilled, career workforce in the industry providing quality service to customers; and it poses no harm to competition.

Ms. Goldman pointed out that stand-alone long-distance is a dying business, and by all measures – revenues, profits, employment -- AT&T is in rapid decline. Over the past five years, consumer revenue declined 64 percent, profits dropped \$22.5 billion, and occupational employment declined 66 percent or 27,000 jobs. The merger is necessary to reverse that decline, and preserve good jobs in the industry.

Ms. Goldman distributed four documents: a powerpoint presentation as the basis of her discussion, the CWA report, "SBC/AT&T Merger is Good for Employees and Consumers," Statement by Ms. Laura Unger, president of CWA Local 1150 to the New Jersey Board of Public Utilities on the merger, and an Economic Policy Institute report *Racing to the Bottom: How antiquated public policy is destroying the best jobs in telecommunications* by Dr. Jeffrey Keefe. These documents are attached.

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During the meeting, Mr. Navin requested that Ms. Goldman provide data on SBC employment trends. The data is provided below.

SBC Employment					
	2002	2003	2004	2005	Change
Occupational Employment	119,800	105,800	99,100	95,000	-21%
Total Employment	192,550	175,400	168,000	162,000	-16%
Source: Occupational Employment – CWA membership reports, various years					
Total Employment – SEC Form 10-K, various years					

Sincerely,



Debbie Goldman, Research Economist
Research and Development Department

Attachments

cc: Tom Navin
Gail Cohen
Bill Dever
Craig Stroup
Rodger Woock
Ian Dillner
Jim Bird
Karen Onyeije
C. Anthony Bush
Joel Rabinovitz
Ken Nilsson

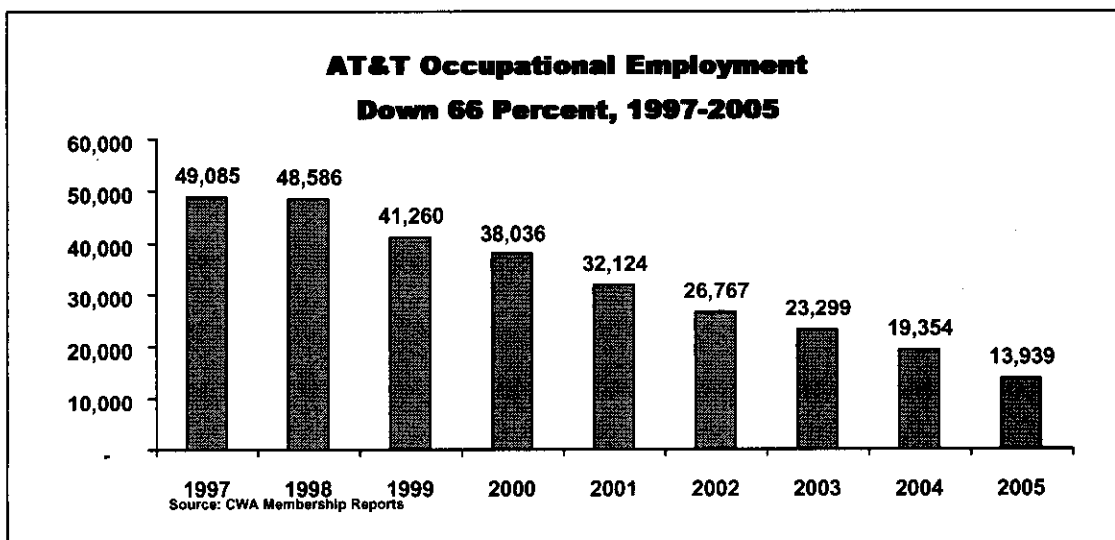


SBC/AT&T MERGER IS GOOD FOR EMPLOYEES AND CONSUMERS

The merger of SBC and AT&T is in the best interests of consumers and industry employees throughout the United States because it will reinvigorate AT&T's declining business.

Recent years have been hard ones for AT&T and its employees. As a result of increased competition from rapidly advancing technologies and misguided business decisions, AT&T has experienced a dramatic decline in its core long-distance business. Since 1999, AT&T total revenues declined \$19 billion, or 38 percent. Most of this decline came in the consumer business where total revenues over the same period plummeted by \$13.8 billion, or 64 percent. In 2004, AT&T suffered a \$10 billion operating loss. (See Appendix charts)

The principal victims of the decline are AT&T employees. Since 1999, AT&T has cut occupational employment in its wireline operations by two-thirds, or 27,000 jobs. Individual stories document the devastation to families and communities as employees of what was once a leading U.S. corporation slashed good union jobs that paid middle-class wages with health care and pensions.¹ AT&T, once synonymous with world-class service, has adopted a low-wage strategy that threatens quality service. AT&T is slashing jobs, and outsourcing and offshoring technical and customer service work to places such as India, the Philippines, and Mexico.



¹ After divestiture in 1984, AT&T occupational employment was 106,000.

In recent years, AT&T has careened from one failed business strategy to another. Two years after its \$92 billion cable purchase, AT&T reversed course by selling its cable division for \$54 billion, thereby abandoning its facilities-based broadband strategy and incurring a stunning \$38 billion loss. In 2001, AT&T spun-off its wireless business, leaving the company without a wireless product of its own to meet customer demand for bundled offerings.

Stand-alone long-distance is a dying business. According to the Federal Communications Commission, interstate switched access (long-distance) minutes declined 22 percent from 2000 to 2003. In 2003, AT&T's share of the shrinking long-distance market stood at only 29 percent.²

The number and prominence of competitors able to offer local and long-distance service has been on the rise. Incumbent local telephone companies have completed their long-term strategy of getting federal permission to offer long-distance service, and are successfully selling local and long-distance bundles to consumers. Wireless service, typically sold with a bucket of minutes that can be used on an all-distance basis, has cut deeply into the number of minutes used on wireline networks. Cable companies are offering similar packages with unprecedented success. And emerging technologies offer additional competitive pressure, including Voice over Internet Protocol ("VoIP"), email, instant messaging, and text messaging.

These services are rapidly replacing traditional wireline services as a large and growing number of households are "cutting the cord," and abandoning traditional wireline services altogether. As of the end of 2004, it is projected that over 1.3 million households within the SBC franchise area alone were served solely through wireless services, and another 360,000 subscribed solely to a VoIP service provider. Nationally, an estimated five to seven percent of customers have "cut the cord" entirely. The Yankee Group estimates that more than 36 percent of local calls and 60 percent of long-distance calls have been replaced by wireless.

After the *USTA v. FCC* decision in March 2004, AT&T made the decision to exit the residential market entirely, including a decision to discontinue direct marketing of AT&T's CallVantage VoIP service. In the second half of 2004, AT&T ceased outbound telemarketing efforts and terminated almost all of its external telemarketing vendors.

The near-elimination of AT&T's marketing function has already meant big job losses at AT&T. AT&T has eliminated most of its

² At the time of divestiture, AT&T had 68.3 percent of long-distance revenues.

telemarketing and customer care division, which at the outset of 2004 was over 9,000 employees strong. Prior to the merger announcement, AT&T stated its intention to continue with significant additional headcount reductions this year. In fact, in its earnings announcement for the 1st quarter of 2005, AT&T reported that it had obtained "savings from ongoing headcount reduction efforts" and that further targeted headcount reductions would be made.

Over the past year, AT&T has closed call centers in Charleston, W.Va., Hawaii, Puerto Rico, Mesa, Az., Syracuse, N.Y., Atlanta, Ga., and St. Louis, Mo. AT&T stopped sending active customer solicitations by mail. Its marketing operations today are just the bare minimum considered necessary to maintain essential customer communications functions while remaining AT&T customers transition to other providers.

Without a vigorous merger partner that will be able to maintain AT&T's already-downsized business, there is a real threat that AT&T will face even more dramatic declines, or will disappear altogether. That would be very damaging for consumers and workers.

AT&T's current focus is on maintaining and growing its business with larger business and government customers. AT&T forecast that it would lose hundreds of millions of dollars in revenues from smaller business customers as a result. AT&T said that it already had reduced its costs of selling and marketing to these customers.

Besides its personnel reductions, AT&T has made it clear that it has abandoned hope for its consumer business through its pricing policy towards its existing customers. Between September and November of 2004, AT&T raised its rates for local telephone service in most states. It will have to increase local rates further as agreements allowing it low-cost access to other telecommunications companies expire. AT&T has similarly increased prices on all-distance packages and on its standalone long-distance products.

AT&T's consumer business is now in a free-falling decline. In June 2004, just before it decided to cease marketing efforts, AT&T had over 4.6 million local customers. In the next seven months, AT&T had lost over a half million of these. Analysts and industry experts predict that declines at these rates will continue.

The demise of AT&T's long-distance business is even more stark. At the beginning of 2003, AT&T had 38.4 million long distance customers. At year-end 2003, that number had fallen to 30.3 million customers, and by the end of 2004, AT&T had just 20 million long-distance customers. More customer losses can be expected as AT&T continues to "harvest" its customer base. And, as AT&T provides service

to an ever-shrinking base of customers, further job cuts are inevitable. Indeed, in January, AT&T told investors that it would be closing some customer care centers as its customer base shrinks.

It is clear that customers – both consumers and businesses – are finding other providers, including CLECs, cable providers, and VoIP providers (each of whose employees do not enjoy the benefits of Union representation), and wireless companies who can handle their telecommunications needs. As many businesses move to IP-based data and VoIP-based voice systems, competition is expanding, and spending is getting redirected to, equipment vendors. Many larger businesses are also redirecting telecom spending through outsourcers, or systems integrators, which maximize competition on the customers' behalf. Thus, it is clear that already-abundant competition in the telecom space is only expanding further. What is less clear is the future for AT&T's employees. Allowing the company to decline into obsolescence and eventually to be sold off for its assets will not serve their needs.

SBC has a plan for AT&T that will create a new, vigorous provider of innovative telecommunications products for consumers, and a robust provider of secure jobs in communities throughout the United States. It is clear that AT&T, as a stand alone business, can only go in one direction, and that involves shrinking revenues, shrinking income, shrinking investment and shrinking jobs. AT&T employees cannot afford to miss this opportunity to stabilize their future.

A combined SBC/AT&T will be a premier communications company that combines the complimentary strengths of AT&T and SBC with no harm to competition. AT&T's global network and research innovations combined with SBC's financial strength and local exchange, broadband, and wireless capabilities will result in a global leader in the deployment of advanced next-generation. The combination will stop the hemorrhaging of jobs at AT&T.

The best way to save good union jobs at AT&T is to merge with another union company that has a stable and growing place in the communications industry. SBC is such a company. CWA and SBC have a strong partnership based upon a shared understanding that service provided by skilled, career union employees is the best way to deliver quality service to customers and ensure good jobs for families and communities.

Federal and state regulators should quickly and enthusiastically give their blessing to the proposed transaction.

Appendix

Chart 1.

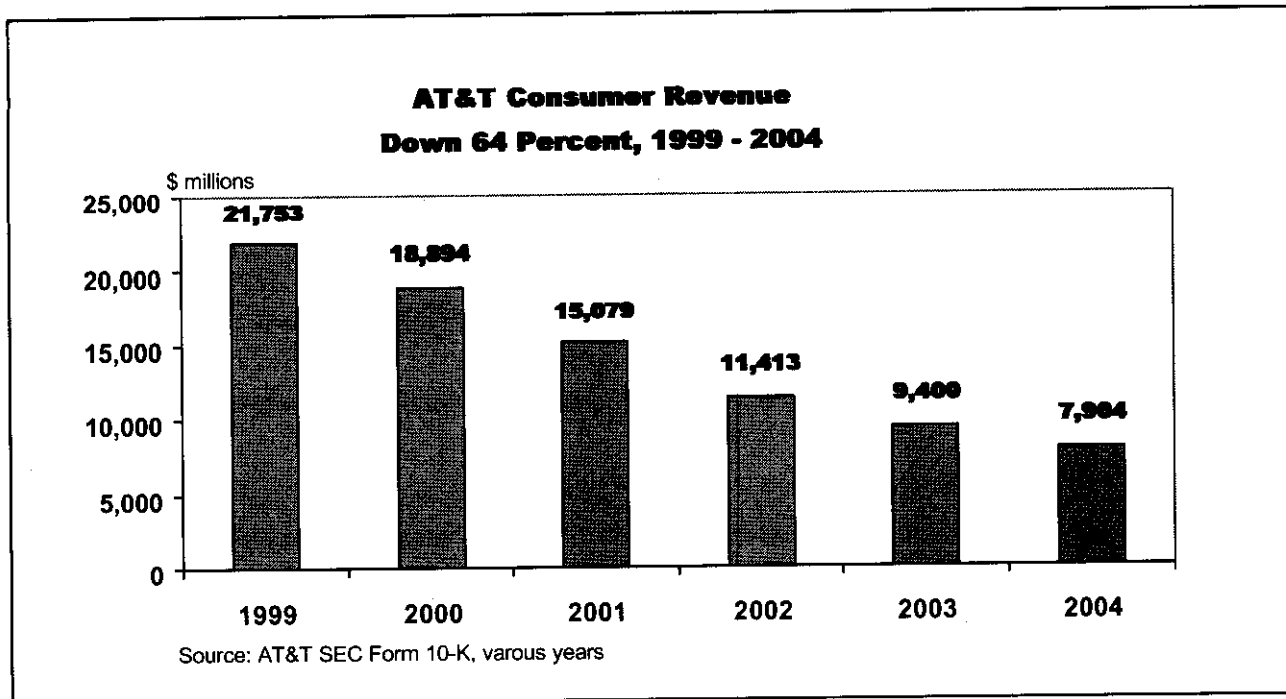
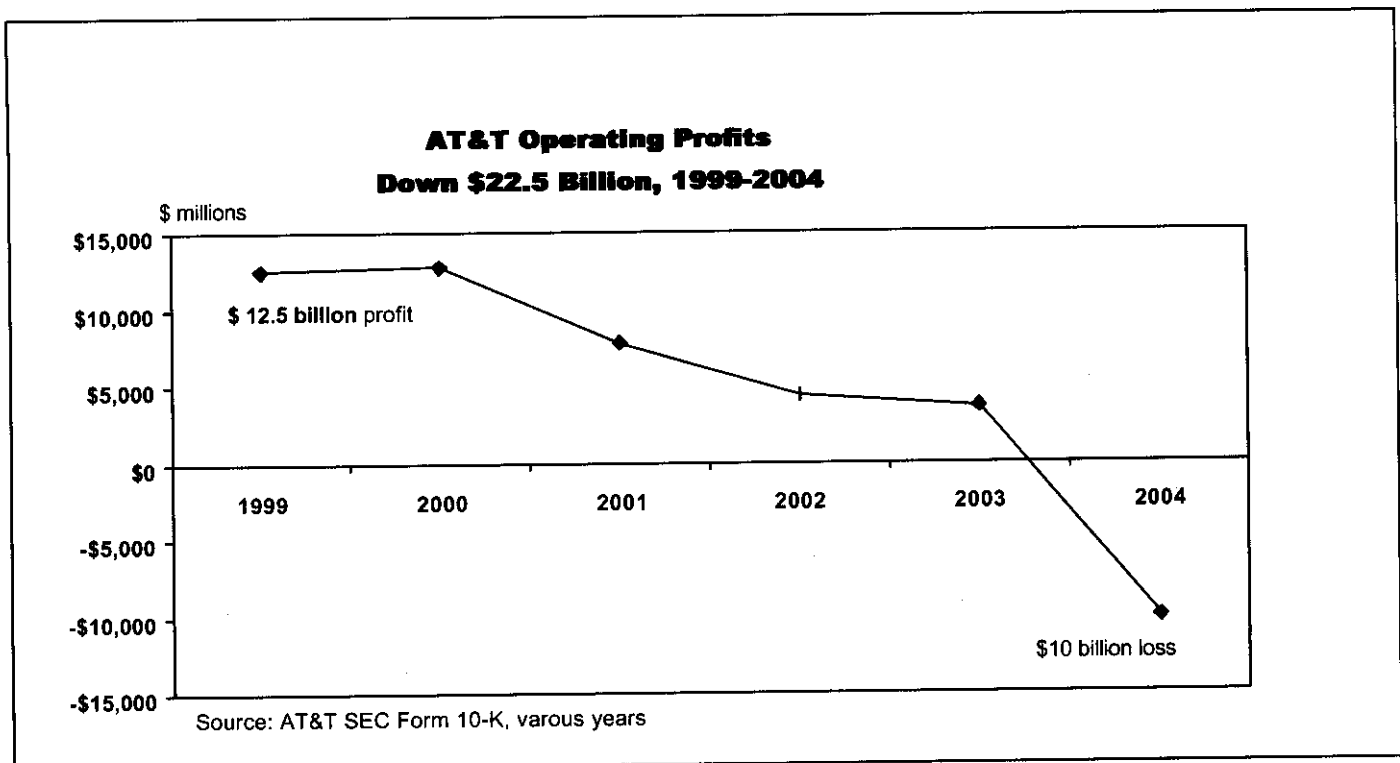


Chart 2.



SBC-AT&T Merger

Communications Workers of America

FCC Presentation

June 9, 2005



AT&T – SBC Merger Serves the Public Interest

- AT&T-SBC merger will result in a financially stronger company that will provide U.S. leadership in communications
 - Combine AT&T's global network and research labs with SBC financial strength, local exchange, broadband, wireless capabilities
- Merged AT&T-SBC will speed transition from legacy networks to next-generation IP-enabled end-to-end networks and services
- Merged AT&T-SBC will preserve skilled, career workforce in industry and quality service to customers
- No harm to competition

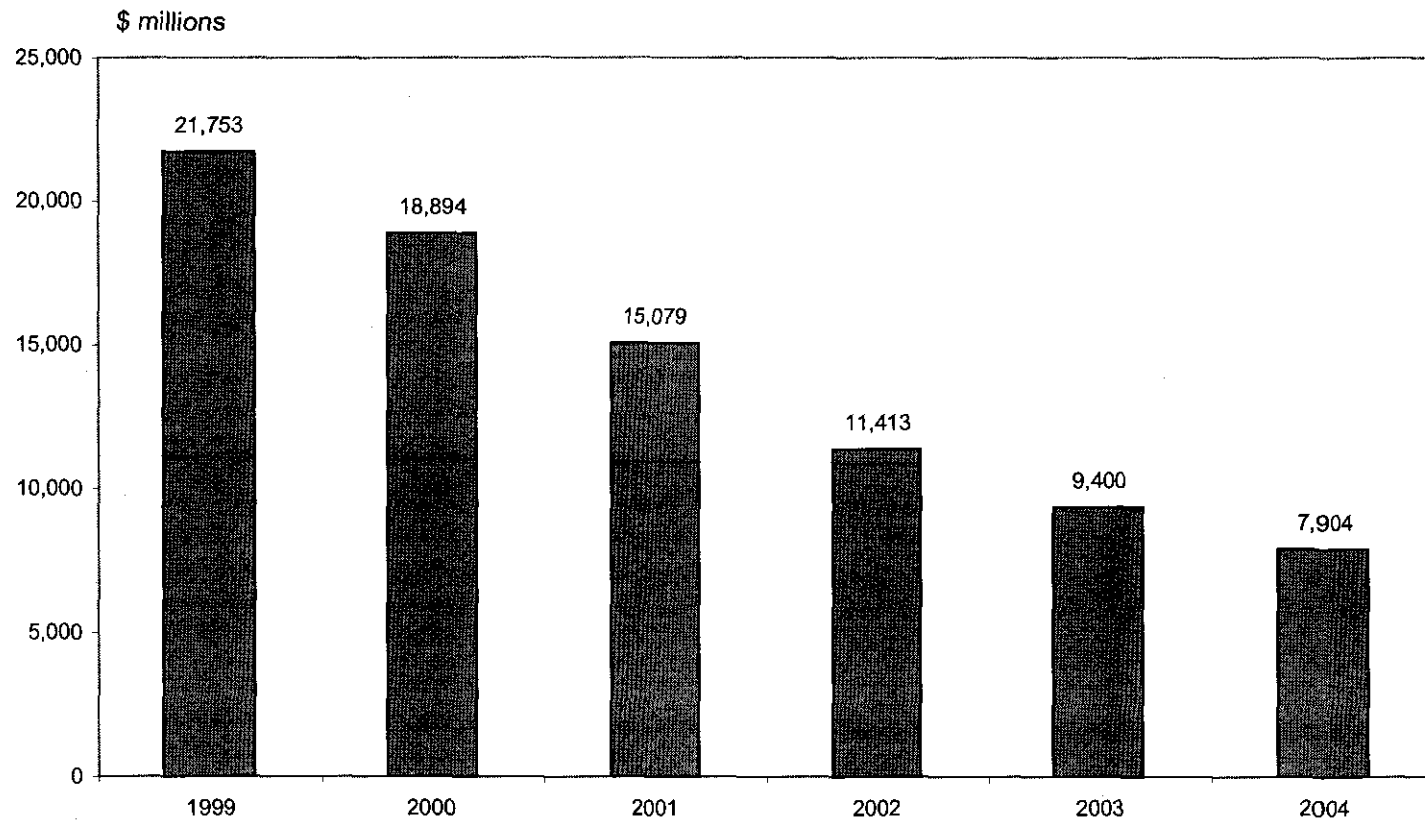


AT&T Decline

- No facilities-based local connectivity
- Stand-alone long-distance is a dying business
 - Interstate switched access minutes declined 22 percent, 2000-2003 (FCC)
 - AT&T 29 percent long-distance market share (FCC, 2003)
 - AT&T Long-distance customers
 - Jan. 2003: 38.4 million
 - Dec. 2004: 20 million
- Future is about end-to-end networks delivering bundles of voice, video, data



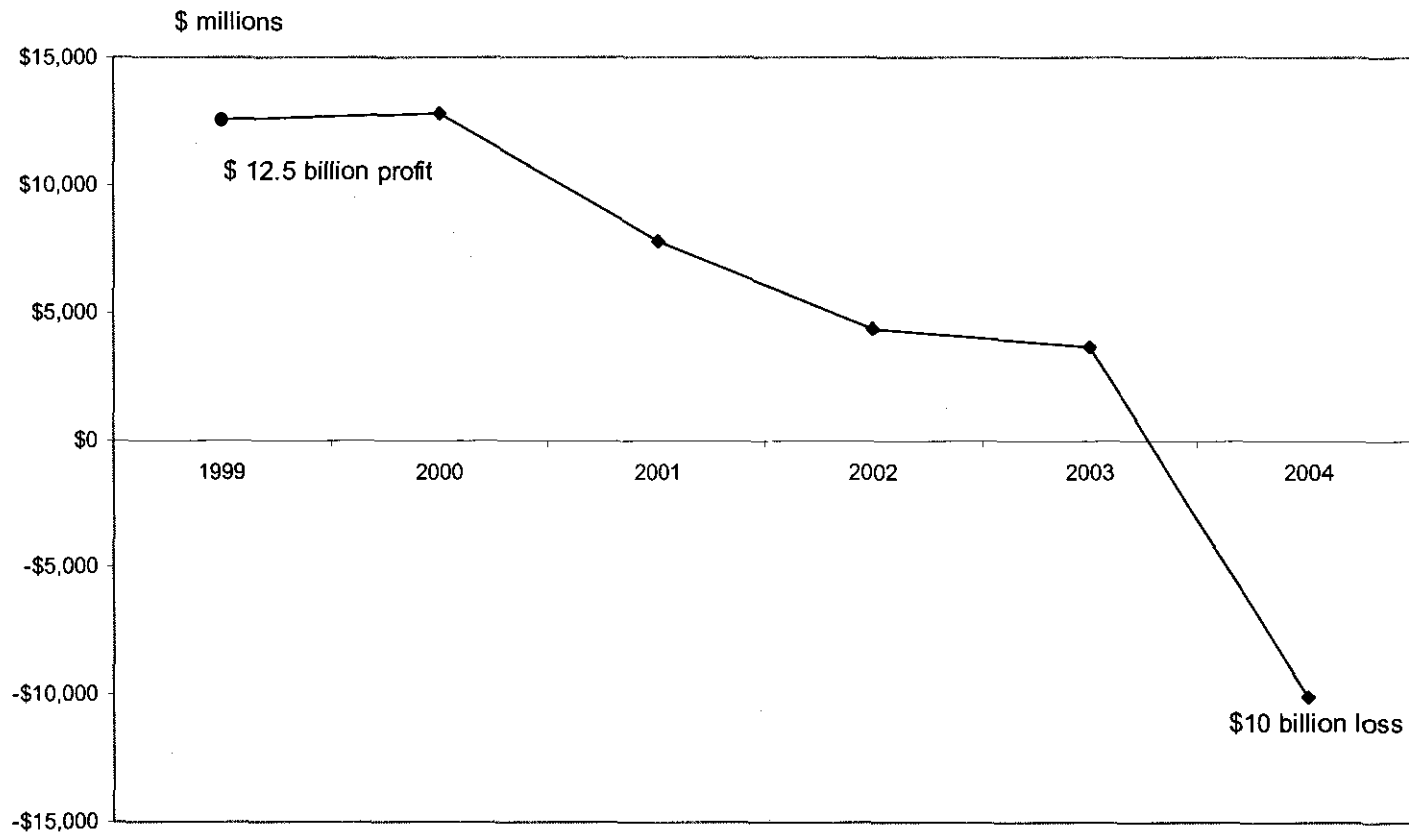
AT&T Consumer Revenue Down 64 Percent, 1999 - 2004



Source: AT&T SEC Form 10-K, various years



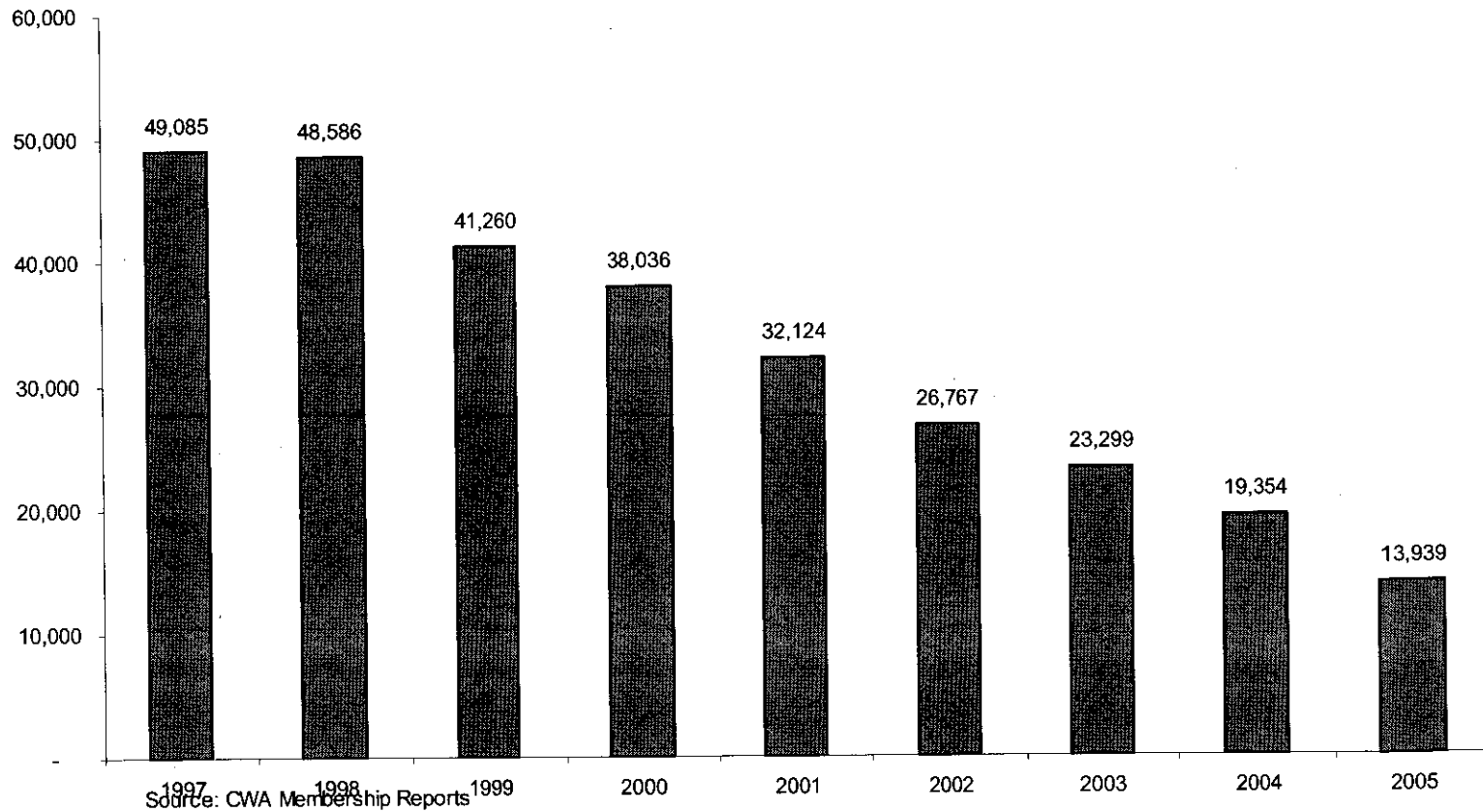
AT&T Operating Profits Down \$22.5 Billion, 1999-2004



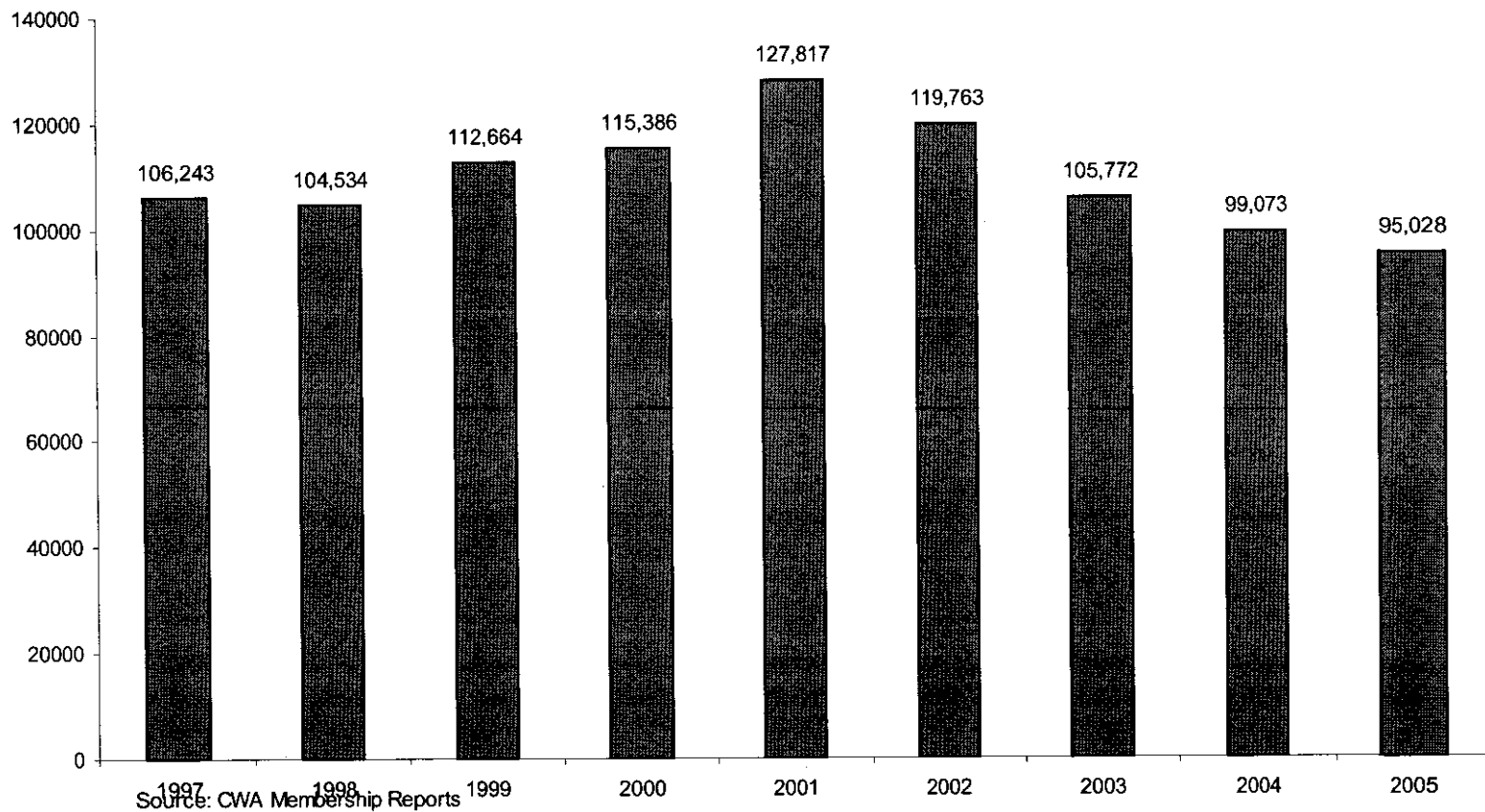
Source: AT&T SEC Form 10-K, various



AT&T Occupational Employment Down 66 Percent, 1999-2005

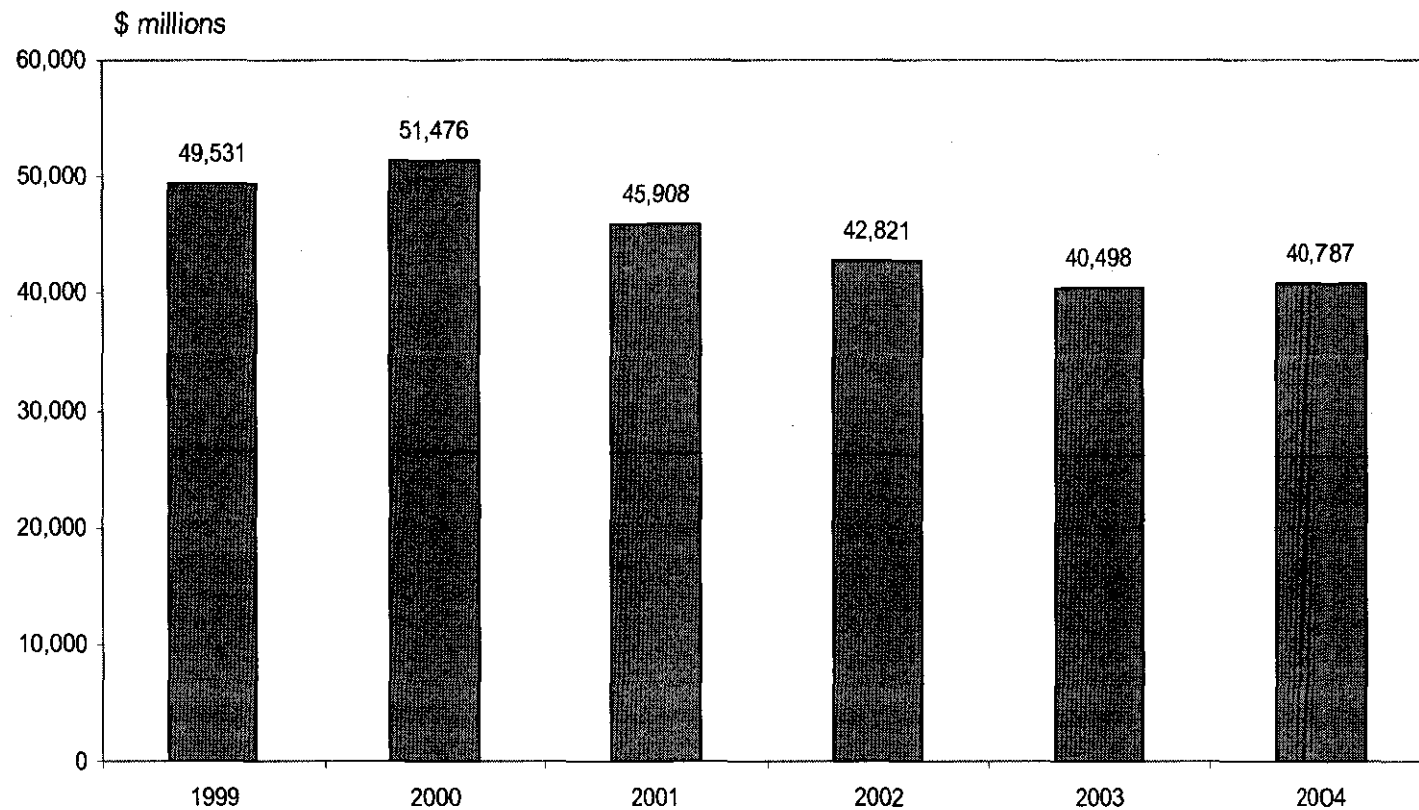


SBC Occupational Employment Down 11 Percent, 1997-2005



SBC Revenue

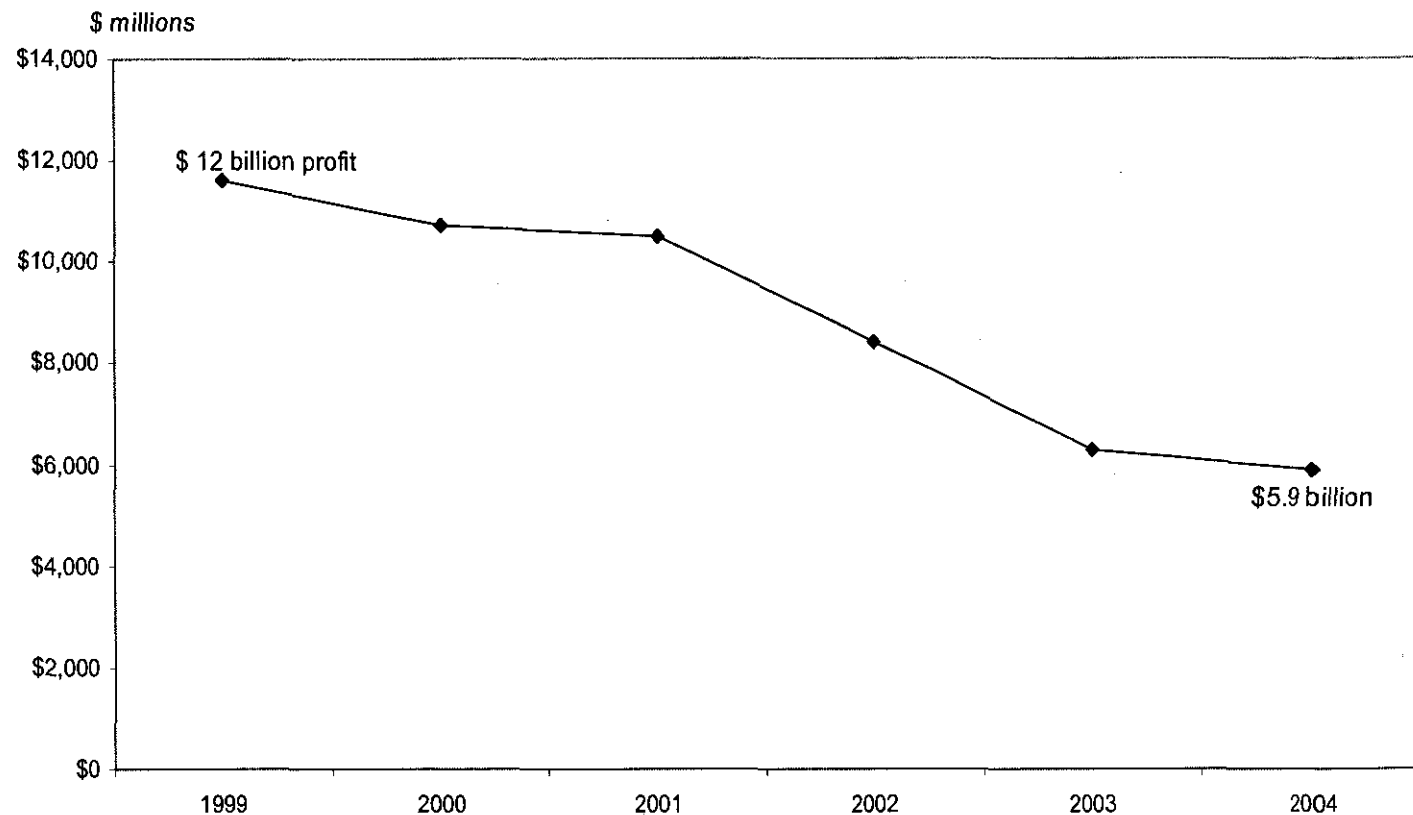
Down 18 Percent, 1999 - 2004



Source: SBC SEC Form 10-K, various years



SBC Operating Profits Down \$6.1 Billion, 1999-2004



Source: SBCT SEC Form 10-K, various years



AT&T – SBC Merger Poses No Harm to Competition

- Complementary assets
 - AT&T: global network, research labs
 - SBC: local exchange, wireless, broadband
- Competition is thriving
 - Wireless: 36 percent local and 60 percent long-distance voice calls (Yankee Group)
 - More wireless than wireline connections
 - VoIP is growing: 16 percent customers by 2010
 - E-mail, wireless, instant messaging reduced long-distance by 47 percent (J.D. Powers, 2002)



AT&T – SBC Merger Is About the Future

- The future: end-to-end connectivity for voice, video, data. Competition between wireless and wireline broadband pipes
 - Consumers: cable v telco competition. Absent merger, cable monopoly first-mover advantage
 - Jobs impact if cable wins: 21 – 42% wage cut, lower-skilled, higher turnover workforce (EPI)
- AT&T – SBC merger results in greater resources, assets, expertise, skilled workforce to accelerate deployment of IP-enabled end-to-end services



Statement to the New Jersey Board of Public Utilities. Hearing on the AT&T/SBC merger, June 6, 2005

My name is Laura Unger. I am a resident of Montclair, NJ. I started working for AT&T in 1979 as a Communications Technician and currently work in New York City. I am also President of Communications Workers of America, Local 1150. I have been President of Local 1150 since 1986. When I was elected my Local had 2600 members. Approximately 1000 of them were in New Jersey. My New Jersey members were all well paid, highly skilled Technicians. Local 1150 now has only 260 members spread over New York City, Long Island and New Jersey. About half work in New Jersey.

AT&T used to be the largest private employer in New Jersey. At one time there were over 50,000 AT&T employees in this state. Everyone knew someone who worked for AT&T. Now, I am sorry to say, everyone knows someone who was laid off or retired from AT&T.

In addition to my laid off and retired members I have others who travel from South Jersey as far as White Plain every day, because the only way they could keep their jobs is to commute 3 ½ hours a day. I have a member who just 3 months ago was declared surplus in Dayton, New Jersey. It was his eighth move in AT&T in 19 years. To keep working, he took a job in Richmond Virginia. Two weeks after he got there, he was declared surplus again and will be laid off. AT&T has closed building after building in New Jersey. In the beginning, work was moved to Atlanta or Denver. Now the work is either eliminated, sent to contractors, or the case of some customer services work, shipped overseas. Since the announcement of the acquisition, the downsizing has actually escalated. We are hearing that tomorrow there will be a notification to management of a 25% cut in their ranks. Despite AT&T's claims that employees are an important asset of the company, AT&T is shedding those assets prior to finalizing the acquisition. SBC will be getting a shell of what they bargained for. This should be stopped now.

I am here to say I support this merger. **I support it because AT&T is too important to be trusted to AT&T.** There have been nothing but bad business decisions, bad purchases, bad sales... one bad decision after another that has led to a loss of jobs and a loss of shareholder value. Of course, the industry has changed and presented difficult challenges but AT&T's management has not been up to that challenge. Maybe under the leadership of SBC we will have a future. Maybe as part of SBC, AT&T will create jobs instead of destroying them. Maybe our pensions and the livelihood of our retirees will be safer. Maybe, AT&T Labs will again be able to continue to make the contributions to science and knowledge that once made us so proud.

SBC says they are buying AT&T to grow and offer new services. Clearly it makes sense to have AT&T be part of a company that can offer a myriad of options to its customers. If jobs are part of that equation, I say welcome. If SBC understands the importance of building a strong presence in the New York/New Jersey area instead of abandoning it, like AT&T has done, then our Union will do everything in its power to make this merger work. If SBC is buying AT&T to use us as spare parts and continue its destruction, then we will all have a fight on our hands. But, the truth is, it's hard to imagine things being much worse for employees and investors than they are under AT&T's current leadership.

I urge you to approve this merger, with the proviso that the New Jersey Board of Public Utilities vigilantly monitors the performance of SBC in terms its impact on jobs, service quality, and prices. I wish I could trust AT&T with AT&T. But I can't. Secure jobs, superb service, and groundbreaking research - We will have to entrust them to SBC, and this Board.

Laura Unger
President CWA Local 1150
Residence:
4 Lansing Place
Upper Montclair, NJ 07043

RACING TO THE BOTTOM

ECONOMIC POLICY INSTITUTE

**RACING
TO THE BOTTOM**
**How Antiquated Public Policy
Is Destroying the Best Jobs
in Telecommunications**

Jeffrey H. Keefe

ECONOMIC POLICY INSTITUTE

About the Author

Jeffrey H. Keefe is an associate professor in the School of Management and Labor Relations, Rutgers University, New Brunswick, N.J. He is also a research associate at the Economic Policy Institute and director of its Telecommunications Program. Recent publications include *Telecommunications 2004: Strategy, HR Practices & Performance* (co-author, 2004), and "Can Unions Serve as Transformational Agents in Public Sector Workplace Redesign?" in the book, *Going Public The Role of Labor-Management Relations in Delivering Quality Government Services* (Cornell University Press 2003). He received a Ph.D. from Cornell University.

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Other books from the Economic Policy Institute

The State of Working America 2004-05

*A Failure to Communicate: Reforming Public Policy
in the Telecommunications Industry*

*Net Working:
Work Patterns and Workforce Policies for the New Media Industry*

The FCC's Newspaper-Broadcast Cross-Ownership Rule: An Analysis

On Hold: Telecommunications in Rural America

Executive summary

Current telecommunications public policy is destroying some of the best jobs in America, jobs that afford non-college graduates the opportunity to earn decent pay and benefits, enjoy stable employment and advancement through training, and secure basic workplace rights and representation. Federal and state economic regulation and taxation of the long-established telecommunications carriers have tilted the competitive advantage toward local carriers such as cable television and wireless, which offer employees inferior conditions of employment. This competitive advantage is not based on productivity, service quality, or underlying access costs, but arises primarily from higher government-mandated costs imposed on established carriers, particularly the former Bell companies. In this regulatory environment, wireless and cable TV carriers are advantaged in ways that have damaged the industry and its employees:

- The traditional wired or “wireline” telephone carriers have eliminated 15.5% of their jobs since 1998; these jobs paid at least 26% more than comparable work in the cable industry, where lower-wage employment increased 22.6% between 1998 and 2003.
- Turnover, in the form of layoffs, dismissals, and quits, is 10 times higher in cable than among the traditional Bell incumbent local exchange carriers (ILECs).
- The Bell ILECs provide significantly more training for their employees than all other communications providers, including more than twice the qualifying training offered by cable television providers, four times the amount provided to technicians by wireless companies, and more than three times the amount provided to service representatives by wireless companies.
- Unions represent 96% of technicians and 77% of service representatives at the Bell ILECs, a share that is more than double the average rate of any other telecommunications provider. This high rate of

unionization leads to improved job quality, better skills acquisition, less turnover, and more stable and productive workplaces at the Bell providers relative to other carriers.

- Tax policy heavily discriminates against the Bell as well as the independent ILECs. Taxes as a share of gross revenue range from a high of 17.9% for traditional telephone service to 4.5% for cable franchises and 0% for broadband services, including Internet phone services, the newest competitor to the Bell ILECs.

As communications platforms increasingly compete to deliver comparable services, tax and regulatory policies favor cable companies. The United States must create a level playing field for all players in the voice and data communications markets to protect the most vulnerable consumers and support the creation of good jobs for working Americans in these critical high-tech industries.

Introduction

Less than 10 years after passage of the 1996 Telecommunications Act, which established a federal policy of promoting competition in telecommunications services, vigorous competition has emerged among wireline, wireless, and cable television companies, each of which uses a different technology to provide local access to services such as voice calling and Internet connectivity. Historically, “local exchange carriers” (LECs) such as the Bell companies or independent telephone companies like Alltel or the former GTE provided publicly switched wireline access for voice communications. These providers held a monopoly over “the last mile” – the two-way transmission lines connecting each home or office to the larger telecommunications network. Since the passage of the act, however, new firms have entered the local market as competitive local exchange carriers (CLECs), offering alternative wireline access. Wireless providers such as T-Mobile, Sprint PCS, and Cingular now offer affordable and convenient substitutes to wireline services. And major cable TV companies such as Comcast and Time Warner have entered the telecommunications market with voice and high-speed Internet services. At the same time, the cable TV monopoly over one-way distribution lines for cable television has eroded. Now satellite television provides alternative access, and the traditional telephone companies are deploying new broadband technologies to offer television and video-on-demand. In sum, new technologies, massive capital investments, and changes in public policy over the last decade have created alternative ways for customers to access local voice, Internet, television, and multimedia services.

However, a consequence of current telecommunications policy in this changing technological and business climate is the destruction of high-quality jobs in the industry – jobs that afford non-college graduates the opportunity to earn decent pay and benefits, to enjoy stable employment and advancement through training, and to secure basic workplace rights and representation. Federal and state economic regulation and taxation of the incumbent carriers have tilted the competitive advantage toward cable TV and wireless carriers, which offer employees inferior conditions of employment. This tilt is not based on productivity, service quality, or underlying access costs, but arises primarily from the higher government-mandated costs imposed on the long-established, incumbent carriers, particularly the former Bell companies.

In this report, we examine the quality of jobs and employment conditions for the two largest occupational groups in this industry: technicians and customer service representatives. To do so, we draw on a unique survey of general managers in a nationally representative sample of 327 establishments in the industry (see Batt, Colvin, Katz, and Keefe 2000, 2004). Chapter 1 examines overall trends in growth, employment, and productivity across wireline, wireless, and cable TV providers. Chapter 2 shows how the quality of jobs, defined as the level of compensation, stability of employment, access to training and job skills, workplace rights and representation, and the quality of the work environment, varies across these providers. Chapter 3 explores the role of unions in creating goods jobs in the industry. In Chapter 4, we develop employer report cards that identify the best and worst workplaces for technicians and service representatives. Finally, Chapter 5 assesses how public policy is destroying the best jobs in the industry and what can be done to reverse this trend.

Industry growth, employment, and productivity

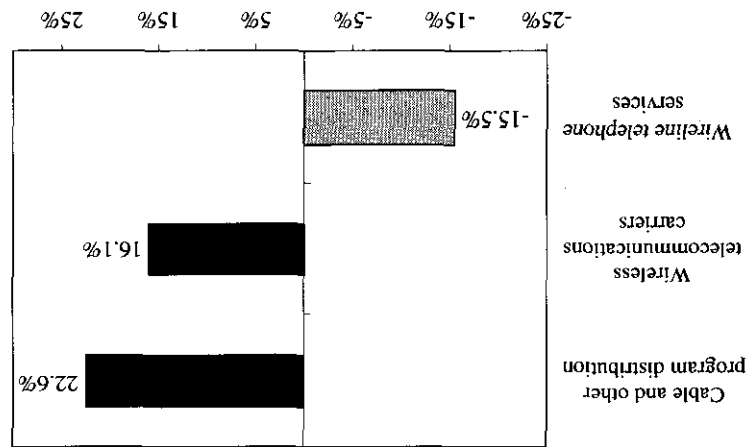
The number of local access connections in telecommunications has increased exponentially since the late 1990s. In business services markets, this growth has contributed greatly to the improvement in overall U.S. productivity. Both businesses and consumers have benefited substantially from the increased flexibility, productivity, and innovation arising from the growth of local telecommunications access services.

Yet growth has not been uniformly distributed across different access networks. Between 1998 and 2003, wireless subscriptions more than doubled, but cable TV lines grew by only 10%. In wireline network services, the new competitive local exchange carriers (CLECs) increased their access lines six-fold to 32 million, and special service access circuits tripled. However, the incumbent local exchange carriers (or ILECs, the providers of the public switched network) lost approximately 18% of their switched access lines, leaving a net loss of 6.5% in total wireline switched access lines, after adjusting for CLEC growth (FCC 2004).

These trends in access lines did not translate directly into employment growth, as shown in **Figure A**. In cable TV, while access lines grew by 10%, employment grew by over twice that rate. In wireless, the 200% growth in subscriptions yielded only 16.1% growth in jobs, and the net loss of 6.5% in wireline switched access lines produced a 15.5% loss in jobs.

These trends in sales and employment across distinct telecommunications channels yielded quite different rates of productivity growth, as shown in **Table 1**. While productivity in cable TV fell 1% annually, productivity grew 11% in wireless and 5% in wireline.

FIGURE A Employment changes in local access telecommunications by network, 1998-2003



Sources: BLS Current Employment Statistics — NAICS sectors: wired telecommunications carriers (5171), wireless telecommunications carriers (5172), and cable and other program distribution (5175).

Table 1 also shows that the wireline network was the dominant method of local access, with 55% of all lines in 2003. It comprised the ILECs' 149 million switched access lines and 119 million special service access circuits and the CLECs' 32 million access lines. The wireline network employs over half the telecommunications workforce, and its productivity growth rate is twice the normal rate for U.S. businesses. This network still affords over 90% of American households with basic telephone service, and it remains heavily regulated at both the federal and state level (FCC 2004). In addition, it pays a variety of state and federal excise taxes and provides most of the federal and state universal service funding. In contrast, wireless, cable TV, and special access lines enjoy a modicum of regulation and pay significantly fewer special telecommunications taxes; this relative advantage allows them to provide services at prices significantly below those in the regulated sector of the industry.

In 2005, for the first time, the number of wireless subscribers will exceed the number of wireline switched access lines (operated by both

TABLE 1 Telecommunications local access markets, 2003

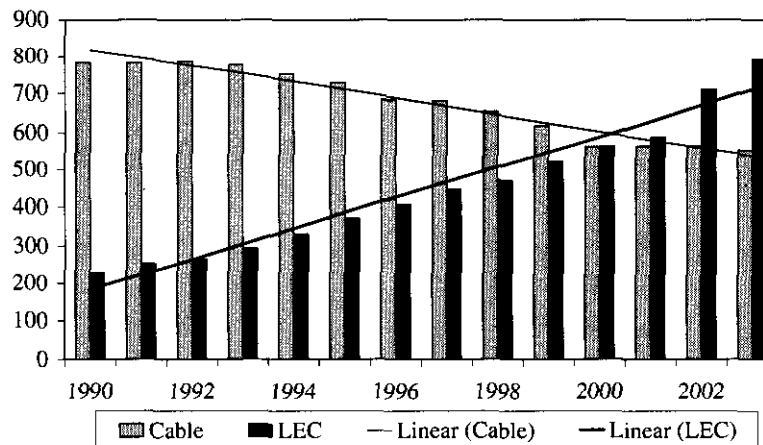
Local access	Subscribers access (millions)	Employees	Revenue (billions)	Productivity growth (annual average, 1998-2003)
Wireline	299	324,000	\$115	5%
Wireless	167	171,000	\$81	11%
Cable TV	73	133,000	\$49	-1%
Total	539	628,000	\$245	
Distribution				
Wireline	55%	52%	47%	
Wireless	31%	27%	33%	
Cable TV	14%	21%	20%	

Sources: FCC (2004); BLS (2004); BLS (2005) — employment and productivity measures are for NAICS sectors: wired telecommunications carriers (5171); wireless telecommunications carriers (5172); and cable and other program distribution (5175).

ILECs and CLECs), suggesting that wireless voice service is indeed a competitive substitute for traditional wireline service (Pociask 2004). With mergers and consolidations, wireless has the fastest rate of annual productivity growth in American industry at 11% (BLS 2005b). In addition, wireless providers are improving their competitive position by offering multimedia services and access to the Internet via high-speed broadband connections.

Cable TV companies that once relied on a unidirectional broadcast technology have upgraded their networks with a digital fiber-coaxial cable hybrid. This technology allows companies to offer video-on-demand, cable modem services, and voice-over-Internet-protocol (VoIP) telephone service in addition to traditional broadcast services. Comcast, Time Warner, and Cox, by aggressively marketing a bundle of services that includes telephone service as well as television and high-speed Internet access, are directly challenging the Bells in the most affluent residential markets. Being able to provide a bundle of desirable telecommunications services provides a significant competitive advantage for cable TV providers. In the meantime, the Bells are racing to deploy high-capacity local access lines capable of providing video services to their customers.

FIGURE B Access lines per employee, CATV vs ILEC: CATV's productivity growth declines as ILEC productivity growth accelerates, 1990-2003

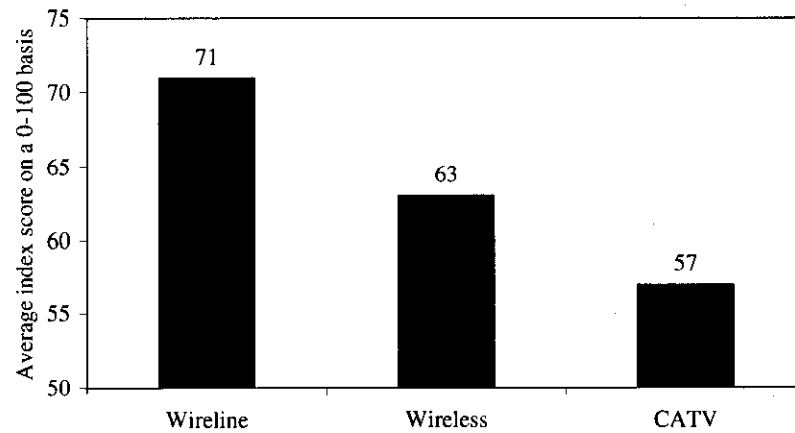


Sources: FCC (2004); National Cable & Telecommunications Association (2005); employment for NAICS sectors: wired telecommunications carriers (5171), wireless telecommunications carriers (5172), and cable and other program distribution (5175).

Cable television's productivity and quality record, however, remains poor. **Figure B** compares the productivity trends in local telephone wireline services and cable TV. Service quality also differs significantly across the three types of access providers, cable, wireline, and wireless. According to the 2004 American Customer Satisfaction Index, an index based on surveys of each company's recent customers, wireline providers score the highest rates of satisfaction, while cable TV providers have the lowest scores (**Figure C**).

In sum, despite the fact that incumbent wireline carriers bear the heaviest costs of taxation and regulation, they have high rates of productivity growth and the best customer service ratings among local access providers.

FIGURE C American customer satisfaction index (ACSI) scores, 2004 Q1
(average of top three service providers in each industry segment)



Sources: ACSI (2004).

Comparing the quality of jobs

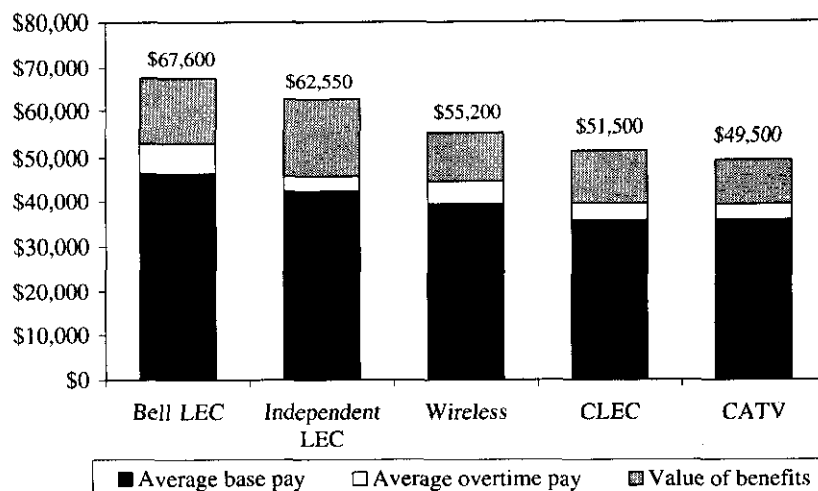
In mid-2003, the Survey Research Institute at the Industrial and Labor Relations School, Cornell University, conducted a national survey of employment practices in 327 establishments in the local access market.¹ General managers at each worksite provided detailed information about the management practices used in their facility. In 46% of the worksites, the employees were technicians, based in office and field locations and responsible for construction, diagnostics, service installation, and repair of communications networks. In the remaining 54% of worksites, the employees were customer service representatives, located in remote call centers and responsible for service and sales interactions with customers.

These two occupational groups constitute the bulk of the productive workforce in the industry. Historically, this workforce has consisted of individuals with a high school education; the telecommunications industry has typically afforded non-college graduates the opportunity to enter skilled jobs that provide opportunities for training and advancement and middle-class wages. The jobs of the predominantly male technical workforce were, and continue to be, the most highly prized — offering high levels of skills, training, autonomy, and pay. The jobs of service representatives have been predominantly female, semi-skilled, and lower in terms of autonomy, training opportunities, and compensation. Nonetheless, these positions have historically provided women with good jobs and middle-class wages sufficient to support their families. While some service agents now work in high-end business-to-business centers and enjoy good pay and working conditions, the majority has

highly routinized and stressful jobs serving the mass market, with high demands to provide quality service, maximize sales, and maximize call volumes.

The survey results bear out the fact that the majority of workers in local telecommunications markets continue to be non-college educated. Among technicians, 52% have only a high school degree, and 42% have some college; only 6% have a college degree. Among technicians, it is only in the wireless segment that employers are hiring college graduates into a substantial share of jobs (36%). Similarly, 41% of service representatives hold a high school degree only, 40% have some post-secondary schooling, and 19% have a college degree. Thus, this study is particularly relevant for understanding how public policy is affecting the opportunities for middle-class jobs and incomes among non-college-educated Americans – the 73% of the workforce that does not hold a college degree but performs the productive and technical jobs in the economy.

We measure the quality of jobs on the basis of five criteria: level of compensation, stability of employment, access to training and job skills, workplace rights and representation, and the quality of the work environment. We examine employer practices and desirable conditions at work from the perspective of technicians and service representatives. We compare the three major local access networks, wireless, wireline, and cable television. In addition, we subdivide wireline into Bell incumbent local exchange carriers (Bell LEC), independent incumbent local exchange carriers (independent LEC), and competitive local exchange carriers (CLEC). For the customer service representatives, we also examine resellers that sell retail services directly to customers through call centers; these resellers purchase on the wholesale market but do not provide services themselves over their own facilities. Establishment sizes vary greatly, with resellers operating relatively small call centers with an average employment of 47, and the Bells running some mega-centers with over 1,200 employees (but their median employment is 305 service representatives). The average call center in the sample employs 206 service representatives. To standardize the comparisons, we report only on call centers serving the mass market of residential and small business customers.

FIGURE D-1 Technicians' annual total compensation by access provider, 2003

Sources: Batt et al. (2004).

Compensation

Figure D-1 compares compensation for technicians by network segment. The Bells and the independent telephone companies offer the best compensation, with annual technician earnings of \$46,510 and \$42,396, respectively. Independent telephone companies are more likely to be located in rural areas, and so that workforce probably enjoys a lower-cost-of-living environment than technicians in the Bell workforce. Cable TV (\$35,724) and the competitive local exchange carriers (\$35,636) offer the lowest pay, with their technicians earning 77% of what Bell technicians take home in a year. Technician pay in wireless markets (\$39,429) lies in between.

In addition to base pay, technicians typically receive overtime pay, and it figures prominently in their standard of living. Premium earnings from overtime range from 8% of technicians' annual income at the independent telephone companies to 14% at the Bells.

Employer-provided benefits are critical for every worker, as health and pension benefit costs continue to rise. According to the Kaiser Fam-

ily Foundation, the average cost for health insurance for a family in 2004 was \$9,950 a year, making health benefits the most expensive employee benefit and a source of conflict and anxiety for both employers and employees (Kaiser Family Foundation 2004). The next largest benefit plans are pensions. The independent telephone companies, on average, provide the most valuable benefits packages (\$16,746), while cable TV (\$10,131) and wireless carriers (\$10,564) provide benefits packages valued at 60% and 63%, respectively, of what technicians receive at the independent telephone companies.

An analysis holding constant a variety of factors influencing wage setting reveals that the greatest single threat to technician earnings in this industry is the growth of the low-wage cable television sector. By contrast, factors that enhance technicians' earnings include greater formal education, years of experience or tenure on the job, and unionization.

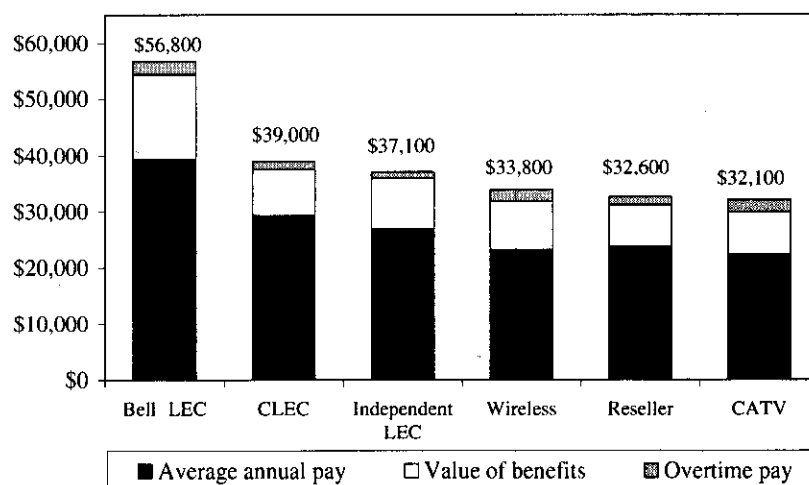
Earnings disparities across different access channels are greater for service representatives than for technicians (**Figure D-2**). The typical service representative working at the average cable TV call center earns \$32,120, about half (57%) the wages and benefits that a Bell customer service agent receives in a year, \$56,771. The Bells also offer the best benefit packages for this largely female workforce (\$14,844), with cable TV (\$7,576) and resellers (\$7,420) offering benefits valued at approximately one-half of what workers receive at the Bell companies. Additional pay for overtime represents between 4% of annual earnings at the competitive local carriers to 9% at cable TV companies.

A similar analysis as above, controlling for other factors influencing wages, reveals that cable TV companies pay significantly less than any other employers in the industry. Other major factors depressing service reps' wages and benefits are the greater use of part-time workers, feminization of the occupation, the growth of cable TV and wireless call centers, and higher turnover, which depresses all forms of compensation. By contrast, unionization, higher levels of formal education, and more years of job experience each significantly raise the earnings of service and sales agents.

Stable employment

Most employees aspire to stable employment because it allows them to plan their futures, raise their children in the same school systems, and participate actively in their communities. Stable employment has be-

FIGURE D-2 Service representatives' annual total compensation by access provider, 2003



Sources: Batt et al. (2004).

come even more important as families require two full-time incomes to get by. Recent research suggests that growing employment instability may be the major factor in generating U.S. earnings inequality for non-college-educated labor (Bernhardt et al. 2001; Gottschalk 1997), owing to the fact that workers historically have benefited greatly from firm-specific training they receive in stable employment relations.

While the conventional wisdom is that employers have rejected long-term employment relations as too inflexible, in fact many managers – particularly middle managers responsible for maintaining high levels of operational performance – recognize the value of longer-term employees. A large management research literature (e.g. Batt 2002) also demonstrates that lower turnover reduces costs and enhances productivity. The American economy, however, generates a 42% annual labor turnover rate (BLS, JOLTS 2005), which makes stability an elusive goal for many workers and employers.

Historically, the telephone industry provided stable employment because it required workers with unique skill sets that could only be acquired through company-sponsored training. Firm-specific skill sets are

still needed in this industry because rapidly changing technologies need to be adapted to company-specific processes and applications. With the onset of competition and the boom-bust Internet investment cycle, employment stability may be undermined, possibly with adverse consequences for productivity growth.

We use three measures to assess employment stability. The first measure, "lack of churn," reflects the retention of the workforce. Annual churn rates include those employees who quit, are dismissed, or are laid off. Lack of churn represents the percentage of workers who stay with their employer during the year — in other words, who do not leave for any reason, except retirements, which employees view as desirable and which we address separately. Among technicians, the Bell, independent, and competitive exchange carriers receive the highest lack-of-churn score (90%). By contrast, cable TV has a significantly lower rate of stability (82% retention), and wireless, the lowest rate (77%) (**Table 2**).

A second measure of stability is tenure, or longevity with the same employer. Here, we identified the proportion of technicians with more than one year of service with their employer. Given the amount of formal and informal training required by technicians, this indicates a minimal period in which technicians can learn about their jobs and make a decision to stay or leave. Approximately all the technicians in the Bell and independent telephone companies have more than one year of experience. On the other hand, the churn in cable results in only 86% of technicians having one year of service. Even though wireless has a higher churn rate than cable, the churn is concentrated in a smaller group of new employees who are churning through the establishments.

In a third approach to capture stability, we examined the percentage of employees who stayed with their company long enough to reach retirement age. In establishments without age discrimination and a diverse age profile, we would expect approximately 3% of employees to be able to retire annually. As shown in Table 2, the Bell companies report the highest rates of retirements (7%), followed by the independent carriers (4%). Wireless and cable TV report virtually no retirements at all. The much higher level of retirements at the Bell and independent phone companies in part reflects an older workforce (average age of 40 for the Bells and independents, 30 for CATV, and 32 for wireless), but the numbers also indicate how the firms have handled employment adjustments in a changing labor market environment, e.g., whether through

TABLE 2 Comparison of employment stability practices for technicians, 2003 (best in bold, worst in italics)

Employment stability measures	Wireless	CATV	Bell LEC	Independent LEC	CLEC
Workforce retention	77%	82%	90%	90%	90%
Share with tenure greater than 1 year	92%	86%	99%	96%	90%
Share who retire each year	0%	0%	7%	4%	2%

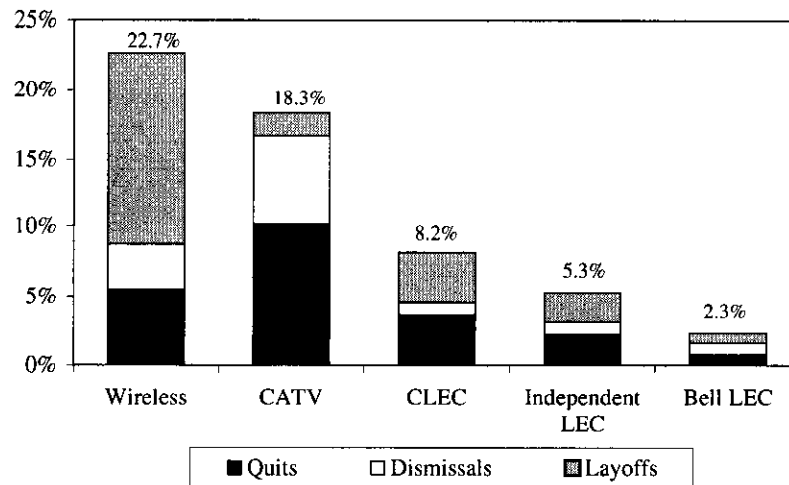
Note: Workforce retention is the lack of churn (turnover), or (1 – turnover rate); see Figure E for workforce turnover data.

Source: Batt et al. (2004).

voluntary incentives such as early retirement as opposed to layoffs. Nonetheless, neither wireless nor the more mature cable industry has any significant number of technicians retiring.

To examine why employees leave their companies, we broke down turnover into its three components: voluntary quits, dismissals, and layoffs. Voluntary quit rates are an indicator of employee dissatisfaction with their working conditions or compensation. As shown in **Figure E**, cable TV companies have the highest quit rates (10.2% annually), followed by wireless (5.5%). By contrast, the Bell companies have quit rates of less than 1%, and the independent telephone companies 2%. Dismissals are a reflection of conflict at work. They may be due to a number of reasons: management does not have procedures in place to select workers with the skills to do the job; employees are not adequately trained to perform their work; employees are dissatisfied and express this through poor work performance; or management does not know how to manage or is punitive in its management approach. Whatever the cause, high rates of dismissals can have negative effects on employer costs and productivity, as well as on the morale of the remaining workforce. Cable TV providers have over six times the rates of dismissals as do the wireline local exchange carriers, and two times the rates found in wireless. The rapidly growing wireless industry has the most layoffs, as it consolidates, restructures, and relocates its operations.

For service representatives, the Bells again offer the most stable employment, with 80% of employees remaining with their employer

FIGURE E Annual technician turnover by local access provider, 2003

Sources: Batt et al. (2004).

each year and with 93% of the workforce having at least one year of tenure (Table 3). The Bells also have the highest percentage of employees who stay with the company until retirement. Wireless, by contrast, has the highest churn rate. Another indicator of employment stability in the call center environment is whether employees have full-time permanent jobs rather than part-time or temporary ones (these practices are used less for technicians and therefore were not reported above). While 99% of the Bells' workforce is permanent and full time, the comparable figure for competitive local exchange carriers is 76%. Resellers and wireless providers also make considerable use of contingent workers.

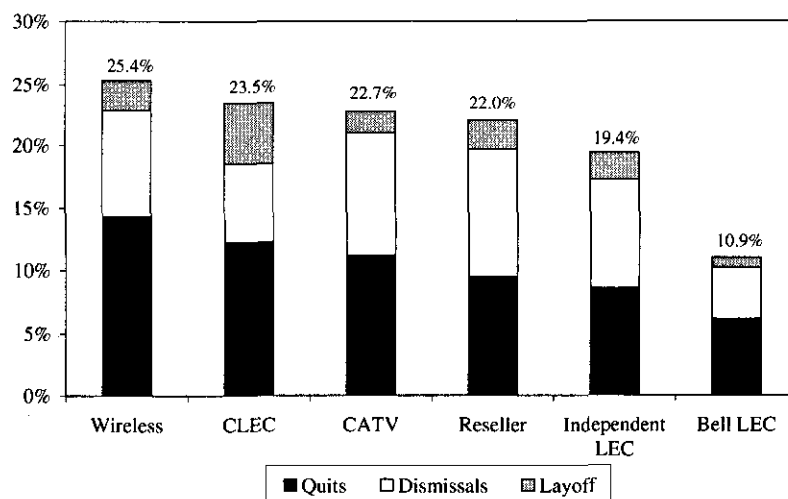
Figure F illustrates the sources of annual turnover among service representatives. Wireless call centers have the highest annual quit rate (14%), followed by the competitive exchange carriers (12%), and cable TV (11%). Cable TV and the resellers have the highest annual dismissal rate (10%). The competitive exchange carriers have the highest proportion of layoffs. In contrast, the Bells have the lowest rates for quits (6%), dismissals (4%), and layoffs (1%).

TABLE 3 Comparison of employment stability practices for service representatives, 2003 (best in bold, worst in italics)

Employment stability measures	Wireless	CATV	Bell LEC	Independent LEC	CLEC	Reseller
Workforce retention	75%	77%	89%	81%	77%	78%
Share with tenure greater than 1 year	78%	78%	93%	81%	81%	77%
Share who retire each year	1%	1%	3%	2%	1%	0%
Full-time permanent share	88%	92%	99%	92%	76%	88%

Note: Workforce retention is the lack of churn (turnover), or $(1 - \text{turnover rate})$; see Figure E for workforce turnover data.

Source: Batt et al. (2004).

FIGURE F Annual service representative turnover by local access provider, 2003

Sources: Batt et al. (2004).

Training and skill requirements of jobs

Another way of measuring the quality of jobs is the level of skills required to perform them. Employers have considerable latitude in whether they define jobs to be relatively complex or simplified. For any given set of tasks, employers can design work so that it requires breadth and depth of knowledge; or they can break up jobs into simpler, discrete tasks, each performed by a different person. Technical jobs, for example, can involve broad and deep knowledge about installing, diagnosing, and repairing network infrastructure; or they can be broken down so that some technicians know only how to install equipment and others only do repair. Customer service jobs can be fragmented into a series of narrow, repetitive tasks, or can be defined more broadly to allow employees to answer a range of customer service and sales needs. More complex jobs typically provide greater intrinsic satisfaction for workers and offer them more opportunities for training and learning.

To capture this level of job complexity and investment in training, we measured the amount of training supplied to employees by their company to qualify them in their jobs (**Table 4**). Among technicians, the Bell companies supplied the most formal and informal training (102 weeks) for newly hired employees, while wireless companies provided the least amount of training and development – only 24% of what a Bell technician receives. Similarly, cable TV and competitive exchange carriers provide only 45% and 55%, respectively, of the qualifying training that Bell companies offer.

Another indicator of the skill requirements and complexity of jobs is the use of computers at work. The use of laptop computers among field technicians, for example, requires that they develop their digital skill sets; it also improves productivity and customer service by making the dispatch of technicians to the field more efficient. Bell technicians are the most likely to use laptops in the field, while cable TV technicians are the least likely to use them – about one-third as likely as a Bell technician.

For service representatives, the Bells also offer the most initial training, with 52 weeks of formal and informal training before a service representative becomes fully qualified (**Table 5**). By contrast, service representatives become fully qualified within 12 weeks at competitive exchange carriers, 15 weeks at wireless centers, and 18 weeks at cable TV centers. We do not measure computer use, since virtually all service representatives use computers.

TABLE 4 Comparison of training practices, 2003
(best in bold, worst in italics)

Training and skills	Wireless	CATV	Bell LEC	Independent LEC	CLEC
Qualifying training (weeks)	25	45	102	73	55
Computers (share using)	50%	<i>17%</i>	56%	47%	50%

Source: Batt et al. (2004).

TABLE 5 Comparison of service rep training practices, 2003 (best in bold, worst in italics)

	Wireless	CATV	Bell LEC	Independent LEC	CLEC	Reseller
Qualifying training (weeks)	15	18	52	22	<i>12</i>	19

Source: Batt et al. (2004).

Workplace rights and representation

Although a clear majority of American workers want to join unions (Peter Hart Associates 2002), the newer employers in this industry over the last 30 years have decided to operate on a nonunion basis. Cable TV's union suppression activities are legendary (Martinez Ortega 2004). Consequently, the only companies with a high level of unionization are the Bells, with 96% of local technicians represented (**Table 6**). Just 9% of local technicians in wireless are union members, all basically working at one employer, Cingular. Cable TV reports 13% of employees with union representation, and the competitive exchange carriers 9%. The survey also asked managers to rate the quality of their labor-management relationship. It should not be surprising that those industry segments that demonstrate the highest acceptance of unionism also have the best relationship with their unions. Bell managers report very good relationships, while cable TV has the most difficult relations.

Unionization rates are somewhat lower among call center workers, but the industry segment patterns are similar to those of technicians (**Table 7**). While 77% of service representatives at Bell call centers are

TABLE 6 Comparisons of technicians' workplace rights and representation, 2003 (best in bold, worst in italics)

Workplace rights and representation	Wireless	CATV	Bell LEC	Independent LEC	CLEC
Unionization	9%	13%	96%	42%	9%
Positive labor relations	60%	55%	79%	73%	58%

Source: Batt et al. (2004).

union represented, the comparable rates are 3% among resellers, 5% in wireless, and 6% in cable TV and competitive exchange carriers.

Repeating the pattern of technicians, cable TV managers report the least positive labor relations with their service representatives in the industry, but resellers, where unionized, claim the best labor-management relations.

Work environment

Research in management and organizational behavior generally has shown that employees prefer jobs that are intrinsically motivating and that offer opportunities for discretion and independent judgment. They value work environments in which motivation is based on trust and commitment, rather than on managerial control and performance monitoring. This research also shows that employees perform better in workplaces that offer high skills and training, opportunities for employees to use their discretion, and incentives based on trust and commitment (Appelbaum et al. 2000; Batt 2002). In this study, therefore, we measure the quality of the work environment along several dimensions: autonomy or discretion over work tasks, freedom from electronic monitoring, and incentive systems built on trust rather than punishment. The autonomy index was created from 10 questions that asked managers to rate the degree of workers' autonomy over such issues as daily work tasks, methods, pace of work, and handling of customer requests. The best score is 100. Freedom from electronic monitoring is the percent of work time that employees are free from electronic monitoring systems (0-100%). Freedom from punishment is the percent of the workforce

TABLE 7 Comparisons of service reps' workplace rights and representation, 2003 (best in bold, worst in italics)

Workplace rights and representation	Wireless	CATV	Bell LEC	Independent LEC	CLEC	Reseller
Unionization	5%	6%	77%	23%	6%	3%
Positive labor relations	70%	60%	81%	81%	80%	100%

Source: Batt et al. (2004).

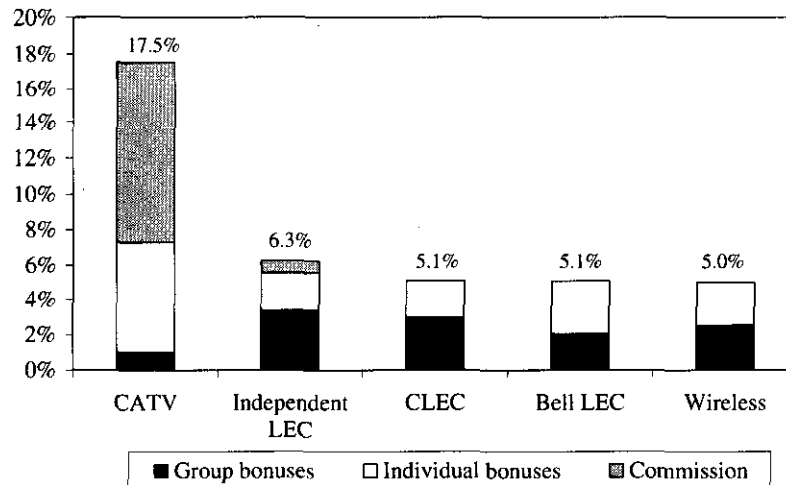
TABLE 8 Comparison of technicians' work environments, 2003 (best in bold, worst in italics)

Work environment	Wireless	CATV	Bell LEC	Independent LEC	CLEC
Autonomy index	71	62	<i>61</i>	65	62
Free from e-monitoring	79%	75%	40%	68%	84%
Free from punishment	86%	79%	88%	94%	87%
Pay that is secure (share fixed)	95%	84%	95%	94%	95%
Gender diversity (share female)	5%	8%	10%	8%	11%

Source: Batt et al. (2004).

that is *not* disciplined or dismissed in a given year (0-100%). Secure pay is the proportion of pay that is fixed, rather than based on commissions or performance incentives. Again, the general managers at each worksite reported on their own management practices along these dimensions.

Many aspects of the technicians' work environment show little variation across the different providers in this study (**Table 8**). In part, this reflects the nature of technical work, which requires judgment and autonomy; in part, its relative freedom arises from working in dispersed locations in the field. Yet some differences are worth noting. On the autonomy dimension, the older, larger, and more bureaucratic Bell workplaces are the worst, but not significantly different from either cable TV,

FIGURE G Incentive pay of technicians by access provider, 2003

Sources: Batt et al. (2004)

the competitive exchange carriers, or the independents. The larger Bell operations also rely more on electronic monitoring, global-positioning-system (GPS) tracking, and specific work practices such as quality systems for performance controls. While this may or may not represent good management, many of the independent-minded technicians resent these intrusions into their autonomy and judgment. The newer wireless service providers, by contrast, have designed their workplaces to afford greater autonomy. As for discipline and punishment, cable TV relies on it more than any other segment of the industry. It has formal discipline rates of 15% of the workforce each year, and dismissal rates of 6.5%; these reflect the industry's low compensation and high-churn model of employment (see Figure E above).

Because this is a field in which the better-paying technical jobs are held primarily by men, we also examined gender diversity at work. In the 1970s, under an Equal Employment Opportunity Commission consent decree, the Bell Companies were required to desegregate their occupational structure. In the current study, we found that overall gender diversity among technicians remains low, with 10% or fewer of jobs held by women. As shown in Table 8, the competitive exchange carriers

TABLE 9 Comparison of service representatives' work environments, 2003 (best in bold, worst in italics)

Work environment	Wireless	CATV	Bell LEC	Independent LEC	CLEC	Reseller
Free of e-monitoring	54%	47%	40%	54%	36%	58%
Free from punishment	74%	69%	75%	75%	74%	72%
Autonomy index	42	38	38	39	39	40
Self-directed teams	29%	15%	15%	18%	21%	20%
Secure pay (share fixed)	72%	84%	82%	89%	85%	81%
Gender diversity (share male)	37%	23%	35%	20%	37%	32%

Source: Batt et al. (2004).

have the highest level of gender diversity (11%), followed by the Bells (10%); only 5% of technicians employed in wireless telecommunications are female.

Technicians in most of the access markets have a relatively small proportion of their pay based on performance – about 5%. The exception is cable TV, where 16% of pay is based on performance incentives (Table 8 and Figure G). Moreover, while employers in other segments of the industry make little use of commission pay, which puts base pay at risk, technicians in cable TV have a full 10% of their pay based on commissions. The heavy use of commission pay suggests that cable TV companies want their technicians to act as sales agents when they gain access to customers' households. This practice is in contrast to the typical focus of technicians' work, which is to provide technical services such as installation and repair.

In comparison to technicians, service representatives have much poorer working conditions along the dimensions measured in this study: autonomy, levels of electronic monitoring, use of discipline, and use of commission-based pay (Table 9). Across the different access channels, however, there is little variation in work environment, as mass market call centers have adopted similar procedures and methods of operation. The competitive exchange carriers and large Bell call centers rely more heavily on electronic monitoring compared to other employers, whereas the small reseller centers use it the least. Cable TV relies most heavily

on punishment of service representatives, with the highest rates of discipline (21%) and dismissals (10%) in the industry. Regarding the use of teams in call centers, which has been associated with greater learning, productivity, social support, job satisfaction, and lower turnover (Batt 1999), wireless providers have more widely instituted them for service representatives, while cable TV has done the least.

Incentive or performance-based pay has become increasingly popular in call centers, as companies compete to maximize sales revenues. Companies have experimented with a variety of incentive pay plans that either combine or provide separately individual bonuses, group bonuses, and commission pay. Performance-based pay ranges from a low of 11.2% of pay among independent telephone companies to a high of 28.2% among wireless providers (Table 9 and **Figure H**). Commission pay is the most onerous form of incentive pay because it puts base pay at risk and intensifies pressure on employees to sell in order to make up their weekly pay. Wireless makes the greatest use of commission pay (19%), compared to 5% on average among independent telephone companies.

The issue of gender segregation is also important in call centers. While traditionally a female-dominated workplace, men have increasingly taken jobs in service centers, in some cases because higher-paying manufacturing jobs have declined precipitously, and in other cases because the pay for customer service occupations has begun to improve relative to technical jobs. Notably, gender desegregation has moved at a faster pace in customer service occupations than in technical occupations. Among wireless providers, Bell companies, and competitive exchange carriers, male employees constitute at least 35% of the workforce, whereas independent telephone companies and cable TV companies have the lowest diversity ratings (20% and 23% male, respectively).

Consistent with the evidence presented above, the Bells seem to offer the high road in employment practices, with decent jobs and high productivity growth, while cable TV follows the low road, with lower-quality jobs and no productivity growth. As we discuss below, unionization is the critical factor in separating the high road from the low road, as employees express their voice through unions to create more desirable and stable workplaces in this industry.